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United States Department of Agriculture,  
DIVISION OF BOTANY.

**BUR, OR GLOBE, ARTICHOKE.**

The bur, or globe, artichoke (*Cynara scolymus*) is cultivated extensively in the countries about the Mediterranean, where it is native and where it thrives in the open air. It is grown to a less extent in gardens in central Europe and England, but being sensitive to severe cold requires winter protection in all these northern regions. It is a vegetable having a very delicate flavor and is sure to become popular in this country on the tables of those who appreciate good things to eat. The bur artichoke is not to be con-



fused with the Jerusalem artichoke (*Helianthus tuberosus*) occasionally grown in this country for its tubers, which are used as a forage for fattening hogs and other domestic animals.

The bur artichoke is a perennial, with stems 3 to 4 feet high, and large pinnatifid leaves from 2 to 3 feet long. The leaves are whiteish green above and cottony on the lower surface, their bases extending in wings down the stems. The flower head, which is the portion eaten, is very large, something like that of the sunflower, but with blue florets. In the cultivated plant the base of the flower head and the bases of the enveloping scales are quite fleshy.

## CULTIVATION IN EUROPE.

The bur artichoke is commonly propagated from suckers, which are produced around the crown. These are pinched off or cut off except two or three, which are left to produce the flower heads. The operation of detaching the suckers requires care, for it is necessary that a portion of the mother plant should be removed with the sucker, without cutting the old stem too deeply. The suckers, after they have been pruned, are ready for planting. Artichokes may be grown from seed, but most varieties do not reproduce by this method with any degree of certainty. However, Gros vert de Laon, a sort much liked at Paris, reproduces fairly true to type from seed.

The best soil for bur artichokes is one that is rich and well drained. The best method of preparing the ground is to trench it, spading in a considerable quantity of composted manure. Black, turfy soils are especially suitable for its cultivation. The shoots are planted  $2\frac{1}{2}$  feet apart, in rows 3 to 4 feet apart, the care required, and the methods of cultivation being similar to those used in the case of cabbage, eggplant, etc. Suckers planted in this way will yield heads in autumn of the first year. When bur artichokes are grown from seed, the seed is sown in hotbeds in February or March, in rows about 3 inches apart, and the plants are finally thinned to about the same distance apart in the row. These are ready to transplant when they have four leaves. They should be set out three or four together in a hill, the hills 18 to 36 inches apart, in rows 3 to 4 feet apart. The cultivation in this case is the same as where the suckers are used. In transplanting, the tap root must be cut, as this favors the production of lateral shoots. Care must be taken to leave a good ball of earth around the roots. Any thorny seedlings should be destroyed, as they represent worthless reversions. To avoid the somewhat difficult operation of transplanting, the seeds may be sown, four or five together, in hills, where they are to remain in the field. A small depression is made on top of the hill, and the seeds are lightly covered with very rich soil. The planting may take place in May in climates similar to that of Washington, D. C. This method has the drawback that plants do not fruit at all the first year, whereas they almost certainly do if transplanted from a hot bed. When bur artichokes are grown in regions where the winters are at all cold, the plants must be protected at the approach of freezing weather. One of the best ways is to make a hill of river sand or earth over the plants, after removing the lower leaves, and heap up leaves or straw over this. As a general rule mulching is said to favor the growth of bur artichokes. In the vicinity of Paris, where the climatic conditions are similar to those of Washington, D. C., the hill of sand or earth is removed from around the plant about the middle of February



or the first of March. The offsets or suckers may then be cut away for use in starting new plantations. These suckers are used because they are sure to bear a crop of heads the first year. A well established plant in the second year will have two strong stems and two or three offsets, which will give four or five principal heads and about eight or nine smaller lateral heads. These lateral heads should be gathered first, and are usually eaten raw, in salads. The terminal main head should be allowed to remain on the plant until just before it is ready to open and flower. This point may be determined by noting when the upper scales or bracts commence to open, exposing the violet-colored ones beneath. If a continuous crop is desired, it may be secured by cutting back the vigorous plant to the ground early in the spring, and thinning out the numerous shoots which are produced.

In case artichokes of some size, but still immature, are on the plant at the approach of winter, the stems may be cut off and stuck 8 to 10 inches deep in sand, in a well ventilated cellar. Such stems will produce heads which, although not first class, are still very good, and sell at fair prices. Some German authors recommend placing the old plants, with a ball of earth about the roots, in a cellar to winter them.

#### FERTILIZERS.

A French grower recommends a mixture consisting of 20 parts of nitrate of soda, 40 parts superphosphate, 6 parts potassium chloride, 20 parts gypsum, and 10 parts iron sulphate, as being the best to use, from 3 to 6 ounces per square yard being applied. Dybowski recommends 10 to 12 tons of stable manure or night soil per acre.

#### BUR ARTICHOKE IN LOUISIANA.

The European, or bur, artichoke, as it is called in the South, has been cultivated in Louisiana for a great many years, especially by the Creoles. There is no evidence of European varieties having been generally introduced of late years. It is quite possible that the plants were originally introduced as potted suckers, or seeds may have been sown, but there is no definite record in regard to the matter. The varieties in general cultivation in the vicinity of New Orleans are apparently entirely different from the European.

The soil particularly adapted to this plant is the rich alluvial Mississippi bottom land. It is considered useless to attempt to grow artichokes on any but a rich, well-drained soil, and the use of large amounts of barnyard manure gives better results than the use of commercial fertilizers; but cottonseed meal has been tried with very satisfactory results.

The method of cultivation is simple. Rows 5 feet apart are raised like sweet potato ridges, and the artichoke suckers are set out in hills 4 feet apart in the row. Four small suckers are planted in a square 5 inches apart in each hill. This number is used in order to obtain a sure stand, the weakest one being removed when it is assured that the other three are thoroughly rooted. The ground is frequently cultivated, so as to keep down the weeds. The suckers may be planted in the autumn or winter, from October to December, or in spring, not later than the first of March. In the latter case the crop will be ready to harvest the following spring, not in the autumn, as might be expected. With the varieties grown in Louisiana it apparently makes no difference whether the plants are set out in the spring or late autumn. The crop is harvested during the months of February, March, and April.

The first artichokes which appear on the New Orleans market, in the latter part of February, sell often for \$2 a dozen, while those marketed in April sell as low as 15 or 20 cents a dozen, the difference in price being due to the greater supply. In Louisiana the bur artichoke is a perennial, dying to the ground in autumn and sending up luxuriant stems  $3\frac{1}{2}$  to 4 feet high during the late winter or early spring. A single plant will bear from three to five flower heads.

#### VARIETIES.

The different varieties are distinguished mainly by variations in the form of the head, or in the coloring of the outer scales. There are two commonly recognized varieties in the New Orleans market, one with the outer scales converging so that they almost meet in a point, the other with a flatter head, and more spreading scales. In former years the only variety grown was known as the Creole. This was a seedling of the *Gros vert de Laon*. It was unfit for shipping purposes, and its cultivation has been abandoned. It is only within the last half dozen years that good shipping varieties have been cultivated, and the shipping industry dates from that period. So far as can be ascertained, no comparison between the best French-grown artichokes and the Louisiana ones has ever been made. Those grown near New Orleans are American varieties originated from plants the seeds of which were probably obtained from some portion of Europe.

The principal artichoke-growing region of Louisiana is near Buras Settlement, and considerable amounts are also grown on the lower coast.

There is a serious pest in the shape of a green aphid, or plant louse, which attacks the plants, often completely covering the leaves and stunting their growth; sometimes they are so numerous as to ruin the crop.

## IMPORTATION OF NEW VARIETIES.

Careful experiments with European varieties are highly desirable. Seeds of some of the Italian varieties were imported a few years ago, but no reports concerning their success were preserved. It is probable that European varieties will require a certain amount of acclimatization, proving more tender at first.

A number of fine varieties have been imported by this Department during the last two years, and the plants are now growing in the hothouses of the Department. Seeds have also been obtained from England, France, and Italy, and it will be possible to make an importation of suckers of the very best varieties as soon as sufficient demand arises.

The point of prime importance in the selection of varieties is to secure early-flowering kinds. The earlier the plants mature their heads, the larger price the crops will bring in the markets. During the last few years considerable shipments of bur artichokes have been made to the Chicago and St. Louis markets from New Orleans, and to the New York market from Florida points. They also appear occasionally on the Washington market, and are somewhat extensively grown in California, especially about San Francisco. The bur artichoke is a fine table vegetable, having a very delicate and characteristic flavor, and coming at a time in the spring when there is not a wide range of garden vegetables, it will undoubtedly become a profitable novelty, and will add another money crop to the list of those which can be grown by the Southern truck farmers.

## SOME METHODS OF COOKING ARTICHOKEs.

The following are some of the many methods of preparing artichokes for the table. That most in vogue in the South is to boil in water, with a pinch of salt, until soft and serve with a dressing of salt, pepper, vinegar, and oil. An Italian method is to stuff them by removing the flowers from their receptacle and filling this space with fresh boiled salmon, bread crumbs, chopped parsley, and garlic, and to bake in olive oil. The fleshy base of the head makes a palatable substitute for mushrooms, and may be stewed or prepared in a variety of ways. A German method of cooking this artichoke is to cut the heads up into eight pieces, parboil, add bread crumbs and bouillon, and bake.

Three recipes by Dubois and Bernard may also be added:

*Lyonnaise artichokes*.—Quarter six large artichokes, clean the bases with care, cut off the hard leaves and shorten the upper ones; round off the angles of the quarters, rub with lemon, and throw into a dish of cold acidulated water to prevent blackening. Drain the quarters and dry on a cloth, then lay flat in a frying pan in melted butter, add salt and start on a brisk fire, turn over and finish cooking over a moderate fire; then arrange in a circle on a platter. Skim off the



fat from the contents of the pan and add hot meat glaze (the juice of beef or other meat boiled until of a jelly-like consistency) and bring to a boil; then add the juice of two lemons and pour on the artichokes through a sieve. Garnish with squares of toasted bread covered with glaze. If the artichokes are not tender, they must first be blanched—i. e., put in cold water—then brought to a boil, after which throw into cold water. The water must be acidulated to prevent blackening.

*Boiled artichoke with Dutch sauce.*—Select very fresh artichokes, break off the stems and remove the outside leaves and the center, pare the bases, rub with lemon, and throw into cold, acidulated water. Drain and throw into salty, boiling water, also acidulated. Cover the vessel and boil over a quick fire. Test them from time to time and as soon as tender drain and plunge again into cold water. Remove the centers and place again in the water in which they were boiled; when well warmed drain again; cut in two without breaking and place in a napkin. Serve hot with Dutch sauce (sauce hollandaise) made as follows: Place a few grains of pepper in a stew-pan with five or six tablespoonfuls of good vinegar; boil until reduced to half in bulk, allow to cool, add five or six yolks of eggs, five ounces of butter, in little pieces, a little salt, a very little nutmeg; then put the saucepan on a low fire and stir the sauce vigorously with a spoon to thicken, pass through a sieve into another saucepan, place on a very low fire or in a double boiler, and whip with a fork, while adding slowly four to five ounces more of butter, cut into small fragments. When all is added and when the sauce is beaten to a good foam, take off and finish with a little lemon juice.

*Artichoke fritters.*—Select artichokes that are small and tender. Remove the centers and all leaves that are not tender; cut lengthwise into small pieces and place in a pan with salt and pepper and let remain for three-quarters of an hour; then drain, dip in egg batter, and fry in hot lard.

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Approved:

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